

Invasive Plants in Pennsylvania

Cork-trees

Phellodendron japonicum Maxim., *P. amurense* Rupr. and *P. lavalleyi* Dode.



Patrick Breen, Oregon State Univ.

Background:

These trees are native to eastern Asia and were introduced into the U.S. in the mid-1800s for landscaping purposes. By 1933, the NY Botanical Garden reported it as naturalized. These trees are still commonly planted in the landscape.

Range:

These species have very limited ranges in natural areas of the U.S. Just a few counties within Pennsylvania and the southern New England states show records of all. Amur corktree is a little more far-ranging, with a few scattered records in Ohio, IL and WI.

Description:

These perennial trees can grow up to 45 feet tall. The bark is thick and corky, hence their name. Leaves are opposite and compound, with many elliptical-shaped leaflets.

Small green flowers appear in June. Female trees produce clusters of fleshy, green berries (turning black as they age) with five seeds each that remain on the trees into late fall or even winter.

Habitat:

These trees prefer full sun but will grow as an understory tree. They like rich soils but can grow in clay to light sandy soils. They are adaptable and drought tolerant.



Deric Case, DCNR - BOF

How to Control this Species:

Young seedlings may be pulled by hand, especially when soil is wet. Cutting of trees alone is not recommended as the tree will resprout vigorously.

Chemical treatment is the most effective method of control. For trees larger than 6" diameter, cut down or girdle the tree, then apply a systemic herbicide like triclopyr or glyphosate. For smaller trees, a basal bark treatment is the preferred method. Herbicide application can be done at any time of year, as long as temperature is above 60 degrees F for 24 to 48 hours and it is not expected to rain for at least 24 hours. Fall or winter herbicide applications will avoid impacts to other vegetation.

Biology and Spread:

Particularly in areas with moist soil, these trees will produce large amounts of seed that may be spread by birds and probably by stormwater runoff.

Ecological Threat:

Cork-trees are beginning to show invasive tendencies in urban, suburban and natural areas of New York and Pennsylvania. Ann Rhoads of Morris Arboretum states that *P. lavalleyi* is being especially problematic in eastern Pennsylvania.



Patrick Breen, Oregon State Univ.

Look-A-Likes:

Experts have indicated that all *Phellodendron* are hard to identify at the species level. The nursery industry has created a number of male-only cultivars like 'His Majesty' and 'Macho' but these have been shown to cross pollinate with female *P. amurense* trees.